

Work Order ID 159174

Wednesday, April 05, 2017 2:25:50 PM

159174

Page 1

Item ID: D2620 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Skidtube, 206 Skidtube
Start Date: 4/6/2017 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 4/11/2017 Req'd Qty: 20.00 ***20*** Customer:
Reference: SCHEDULED/U

Approvals: Process Plan: DAS 21 Date: APR 06 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2620	Rev B								
100	Skidtubes	0.69							
100									
Skidtubes	Memo	2.91							
Skidtubes	1-Bend extrusion as per Dwg D2620 using CNC Bending Machine program 206.A and Folio F008								
	2- Cut Fwd end of tube as per Dwg D2620								
110	QC5- Inspect part completeness to step on W/O	0.00							
110									
QC	Memo	0.40							
Quality Control									

[Signature] 17-04-06

20 *[Signature]* 17-04-06

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Identify as per dwg & Stock Location: LG002	0.00							
120									
Packaging	Memo	0.20							
Packaging	LOCATION : LG002								
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	2.00							
Quality Control									

DAS
21
9-89

APR 07 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

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Parent Item: D2620

D2620

Parent Item Name: Skidtube, 206 Skidtube

Start Date: 4/6/2017

Required Date: 4/11/2017

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP D02.07.26Change Dwg to rev.B; Updated LocationRF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-160		Manufactured	No			100	Each	162.0000	1	20			

D2600-1-160

Extrusion Round 3" 206

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
HALL	145	
136919	41	
141287	104	
LG002	17	
136919	17	

⑦ TW 17-04-06
⑬ TW 17-04-06

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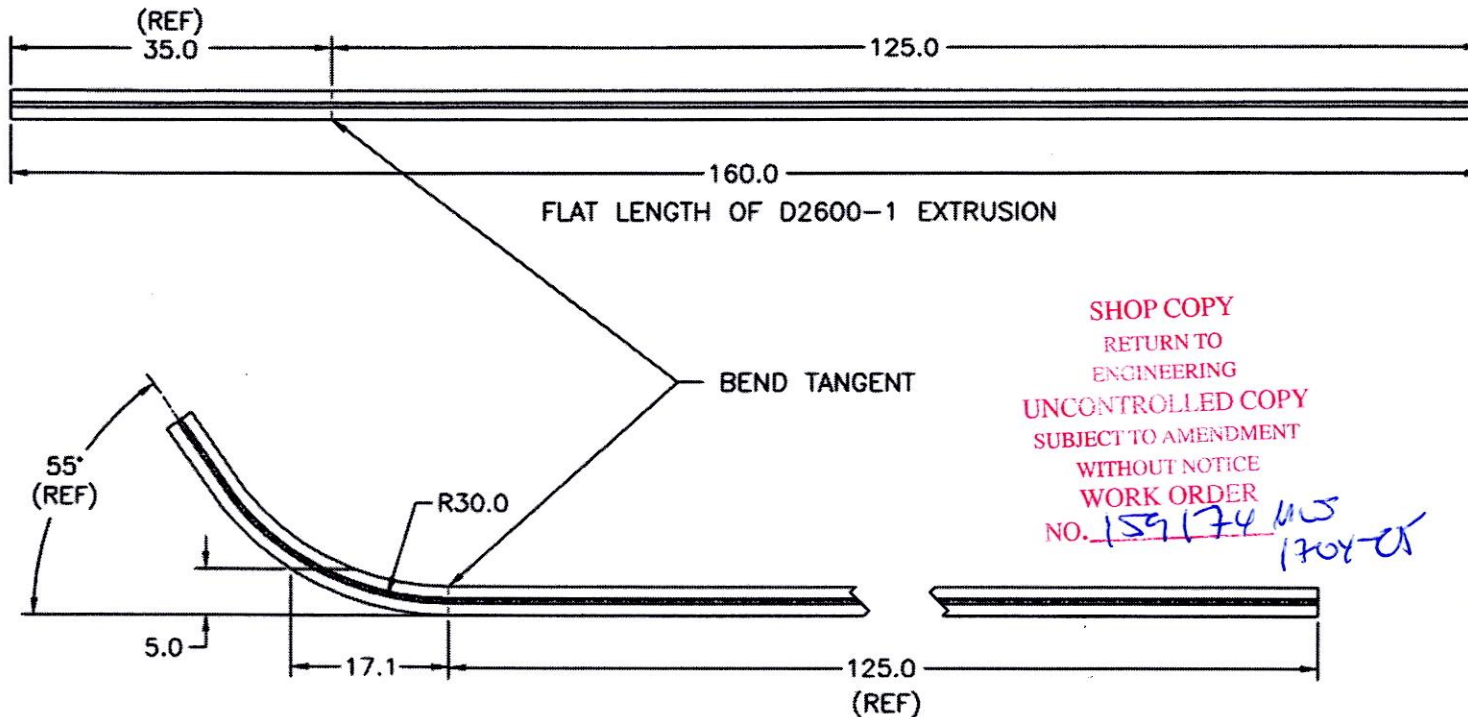
Work Order update only ☐

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Root Cause				FAULT CATEGORY			
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Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
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Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
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Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

SPECIFICATION CONTROL DRAWING

206 SKIDTUBE BENDING



DAMAGE TOLERANCE

1. THERE SHOULD BE NO VISIBLE WRINKLES BELOW 5.0 AFTER BENDING.
2. GOUGES UP TO 0.020 DEEP ARE ACCEPTABLE IN BENT PORTION OF THE TUBE. NO GOUGES ARE ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. DEEPER GOUGES ARE ACCEPTABLE IN THE PORTION OF THE TUBE ABOVE 5.0.
3. TUBE WIDTH SHOULD BE 3.20 ± 0.200 IN THE BEND. TUBE WIDTH SHOULD BE 3.200 ± 0.010 IN THE FLAT PORTION OF THE TUBE.
4. TUBE HEIGHT SHOULD BE 3.15 ± 0.200 IN THE BEND. TUBE HEIGHT SHOULD BE 3.150 ± 0.010 IN THE FLAT PORTION OF THE TUBE.

NOTE: ALL DIMENSIONS ARE IN INCHES

DART



DESIGN	DRAWN BY	TITLE	REV. B
99.09.10	RF	D2620	1:20
CHECKED	APPROVED	DRAWING NO.	SHEET 1 OF 1
99.09.10	KE	206 SKIDTUBE BENDING CONTROL	1:20
A	97.11.07	NEW ISSUE	
B	97.09.10	UPDATE FOR IN-HOUSE BENDING	

RELEASED
44.04.15 DS